

comprised of raw data coming from an input device, and a description of the construction and execution of BIFS updates being based on the data carried in the user interaction stream used to modify the scene. The Applicants additionally refer to paragraph [0030], where a description of user interaction flow is provided. The user interaction flow comprises access units originating from an input device (i.e., a keyboard or mouse). The Applicants respectfully submit that one of ordinary skill in the art understands that the data emitted from the input device is raw data. The raw data is dimension data or position data, for example.

Accordingly, the Applicants respectfully submit that the term “downstream interaction stream of raw data” is clear and is supported by the Specification. Therefore, withdrawal of the 35 USC §112, first paragraph, rejection is respectfully requested.

Claims 15-19 and 21-29 stand rejected under 35 USC §103(a) as being unpatentable over Kalva, in view of Liang, and further in view of Kim. The Applicants respectfully submit that Claims 15-19 and 21-29 are patentable over any theoretical combination of Kalva, Liang, and Kim for the reasons set forth below.

Independent Claim 15 recites a method for the management of interactions between a peripheral command device and a multimedia application exploiting the standard MPEG-4 to display a scene with MPEG-4 objects. The method according to Claim 15 includes “constructing a first digital sequence having the form of a BIFS node. The “digital sequence is based on a downstream interaction stream of raw data from the peripheral command device.” The BIFS node includes updates, which are based on the raw data, to modify the scene. The BIFS node also includes “a nature of action field and a parameter for action field to be applied to objects of said scene,” as well as a flag whose status either enables or prevents an action to be taken into

account. The method of Claim 15 further includes “executing the first digital sequence to reflect the one or more updates to modify the scene.”

Thus, the method of Claim 15 advantageously serves as a mapping between a peripheral device and a scene by receiving events from outside the scene (from a peripheral device, such as a keyboard or mouse) and triggering modifications into the scene. The events from outside the scene are represented in the “downstream interaction stream of raw data.” Then, BIFS updates are constructed and executed based on the data carried in the downstream interaction stream to accordingly modify the scene.

Kim is relied upon for disclosing that the first digital sequence is based on downstream interaction stream of raw data from the peripheral command device. (*See* Page 5 of the Office Action of December 2, 2009.) This feature is admittedly absent from both Kalva and Liang.

Kim is directed to use of an upstream channel for processing user requests related to multimedia contents and scene formatting. Kim describes that the server transmits information relating to an identifier of each node, temporal/spatial information on each object, and correlation information on each object. The information is transmitted with a scene description stream in a server with a BIFS scene encoder. Then the decoder of the terminal interprets the information, allowing the user to watch. If an error occurs, the user may select the object in which the error occurred with an input device, and the node selected by the user is retransmitted via an upstream channel message. (*See* column 7, lines 4-27 and FIGs. 6a-6d of Kim.)

However, as described above and according to Kim’s system and processing, the execution and construction of BIFS is performed on a remote server that is connected to the terminal to which the input device is connected. In fact, Kim describes that all scene modification steps for binary MPEG4 is performed by a remote server based upon upstream

channel messaging from a user terminal. This is in sharp contrast to the method of Claim 15 in which the processing (i.e., executing and constructing of BIFS) is performed on the entity to which the input device is connected. Specifically, Claim 15 recites constructing and executing a first digital sequence having the form of a BIFS node, where the first digital sequence is based on a downstream interaction stream of raw data from the peripheral command device.

Thus, the Applicants respectfully submit that Claim 15 is patentable over the combination of Kalva, Liang, and Kim as the combination fails to disclose construction of “a first digital sequence” in the form of a BIFS node based on “a downstream interaction stream of raw data from the peripheral command device,” the BIFS node comprising “one or more updates based on the raw data to modify the scene,” and subsequent execution of the first digital sequence “to reflect the one or more updates to modify the scene.”

Claims 16-19 and 21-25 are patentable at least due to their dependency on Claim 15, shown above to be patentable. Independent Claim 26 recites computer equipment that includes the features of the first digital sequence and the BIFS node recited in Claim 15. Accordingly, the Applicants respectfully submit that Claim 26 and its dependent Claims 27-29 are patentable for the reasons described above with respect to Claim 15.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



T. Daniel Christenbury  
Reg. No. 31,750  
Attorney for Applicants

TDC/vp  
(215) 656-3381